

**ABSTRACT OF THE DISCLOSURE**

A method of treating animal manure solids comprises contacting the solids with a treatment composition comprising  $\text{AlCl}_3 \cdot n\text{H}_2\text{O}$  or  $\text{Al}(\text{NO}_3)_3 \cdot m\text{H}_2\text{O}$ , or the residue of

5  $\text{AlCl}_3 \cdot n\text{H}_2\text{O}$  or  $\text{Al}(\text{NO}_3)_3 \cdot m\text{H}_2\text{O}$ , to form a treated waste product, wherein n is from 0 to 10, and m is from 0 to 12. The treatment amount can be effective to reduce phosphorus solubility in the manure; reduce phosphorus runoff and/or phosphorus leaching from fields fertilized with manure; inhibit ammonia volatilization from the manure; flocculate solids in the manure; reduce pathogens in the manure; increase the nitrogen content in

10 the manure; and/or reduce acid rain and PM-10s associated with the manure.